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A CASE FROM MY NOTE-BOOK.

BY W. CHANNING, M.D.

[Communicated for the Boston Medical and Surgical Journal.]

JULY 25th, 1862.—Mrs. ——, 26; two children, oldest 4 years. Last menstruation January last part. Quickening about 14 weeks ago. Says she is 7 months pregnant. Had cough sometime before, and vomiting or retching has accompanied this almost from the very beginning of pregnancy. For the last two months, respiration has been very laborious, and accompanied by grunting. So laborious was it, and so difficult was expectoration—sometimes threatening suffocation—the pulse was so rapid, and so various in frequency and strength, together with the impossibility of bearing food or drink on the stomach—and such was the exhaustion, that it seemed hardly possible for life to be much longer sustained. Auscultation discovered disease of both lungs. There was so much confusion in the sounds—coarse crepitus—whistling—bronchial—mucous—no egophony—dulness on percussion, &c. &c., that the diagnosis was not easy. Expectoration, very small in quantity; mucus sometimes tinged with blood. Anasarca of feet and ancles. This state of things had existed full three months. The most striking of the rational signs was constant aching of the chest and epigastrium. This was owing in part to the rapid and labored expansion of the chest to permit air enough to enter the lungs to support life. Most bitterly was it complained of by one of the most patient sufferers I have met with in a long life.

There were symptoms of labor. The womb was not very large, but tense—more so than I remember to have seen before. Pressure made no difference in its outline. Examination per vaginam discovered the os uteri soft, dilated, and generally dilatable. The membranes were felt to be distended by a large quantity of liquor amnii. Vagina soft—dilatable, well lubricated. Labor was present, but the patient had felt no *uterine pain*.

What was to be done? Dr. ——, by whom I had been called for consultation, agreed with me that the only chance of recovery was in producing uterine action, and this could be effected by rupturing the membranes. This was done, and a very large quantity of waters followed. There was some relief. Active contractions soon came on, and in about two hours the child was born, a female, weighing probably from five to six pounds.

The afterbirth soon followed. Some coagula were removed from the vagina. The womb contracted perfectly, being felt as a small, round, smooth ball, just above the anterior portion of the brim. This is described because the womb presented a condition which I at least have not met with before. It was not produced by any unusual descent of the womb into the pelvis, for this was learned by examination, and not the least uterine uneasiness was complained of, upon such pressure as generally produces pain. The womb had contracted so perfectly that there was no portion of it in such a state as to *contract* upon pressure and produce pain. There was no *flowing*. Much relief followed delivery. Mrs. —— could now lie somewhat down. For weeks before, this was scarcely possible. As the cough still annoyed her, she got about one-eighth of a grain of sulphate of morphine in solution, which was followed by some mitigation of this leading trouble.

July 26th. I found Mrs. —— lying with a single pillow, breathing with comparative ease, with well-marked intervals, with very little movement of the chest, and without any *grunt*,—and, during my visit, without a cough. Skin soft;—pulse about 120, soft, and uniform—countenance perfectly calm, and natural. She was lying on the *left side*, which she had scarcely been able to do for the two months of her disease. Had passed urine freely, and without uneasiness. Her expression of relief was without qualification. For the first time she had taken food with relish, and had borne it perfectly. "What food?" I asked. "Gruel—toast and tea," was the answer.

Upon examining the abdomen, the womb was found well contracted, and no pain was produced by pressure upon it, or in any other part of the abdomen. Directions were given to the nurse to preserve the next urine, which Dr. B., the attending physician, had before agreed to examine chemically, to ascertain if it contained albumen.

27th. I was called early to see Mrs.—, and learned she had passed a very uncomfortable night; had been very *nervous*;—hot—thirsty—no sleep. The infant died in the night, and this being told her, increased her discomfort. No cough nor vomiting in the night; occasional difficulty of breathing. Such was the report. I found her more calm, and complaining of heat and thirst. Skin dry—hot generally, but the hands, arms, and head, most so. Abdomen flat, soft—not tender. A coagulum had passed from the vagina. Pulse rapid and quick, between 120 and 130. Urine abundant, and of natural color. Lochia natural. Breasts as before delivery. Urine, tested with nitric acid, showed slight traces of albumen. ℞. Pulv. potas. nit., ʒ i.; aquæ, ℥ vi. M. Half an ounce, every five hours. At night, if sleepless, ℞. Extract opii. liquid, gtt. xx. To be repeated if necessary.

28th. Sleep good—refreshing. In all respects much better than yesterday. Auscultation discovered much diminution of pulmonary trouble, and respiration very little disturbed. No milk—lochia natural. Continue treatment of yesterday. If no dejection, fluid extract of senna to-morrow morning.

It may be asked why a cathartic had not been given before. Many years ago, it was customary to give physic the day following delivery. In a case of grave disease following labor, the late Dr. John C. Warren was once called in consultation the second day after delivery. It was asked if a cathartic might not be useful. Dr. Warren said, no; adding, that he had long abandoned this practice, and for this reason, that as a puerperal patient had recently suffered so much pain, so much local and general disturbance, he could not but think that purging would only increase trouble, and might even produce grave disease, and that the best treatment under such circumstances was perfect rest, and especially of the abdominal viscera. I have followed this suggestion ever since. On the third or fourth day, a laxative may be given. A favorite one is castor oil in lemon juice, say from one to two drachms of each, fasting in the morning; a mixture some years ago recommended by the late Dr. Armstrong of London, and which very rarely fails to answer the purpose and with perfect ease to the patient. As Mrs. —— always vomits castor oil, senna was directed instead.

A question arose in this case, whether turning should be attempted after rupturing the membranes. Upon full view of the case—the length of time of the disease, and its obvious effects, and especially the uncertainty of consequences from the necessary violence of the operation—it was agreed to leave the case as it was, to the occurrence of natural labor, and to such artificial aid as circumstances might demand. There was this to support such a course. The presentation was perfectly natural—the occiput being to the left acetabulum, the forehead to the right sacro-ilac synchondrosis. It was quite low enough to be easily reached by the forceps, if indicated, and the *os uteri* was so dilatable as to be swept with perfect ease over the head, to, and above the symphysis pubis. Contractions soon declared themselves, and the head responded to the effort. The embarrassment of respiration was increased, and as loud complaint was made of the suffering, as the patient could utter. Efforts increased, and voluntary force soon came into exercise, and in about two hours from the rupture of the membranes, as was said above, delivery was accomplished.

August 2d.—Mrs. —— is rapidly convalescent; feels quite well. Respiration somewhat labored, and pulse more rapid than natural. Auscultation found pulmonary troubles much less. Has milk.

ACCIDENTAL RESECTION OF THE ELBOW-JOINT.

[Communicated for the Boston Medical and Surgical Journal.]

In September last, Richard French, aged 61 years, a hard-working mechanic, of good habist, while at work at a bench saw, a tub saw of twenty-two inches in diameter, with coarse and wide set teeth, by some means got his left arm in contact with it. The arm being flexed at the time, the saw engaging the outer or radial edge of the arm, both above and below the joint, passed through the soft tissues and diagonally through the humerus at the point where the bone spreads out to form the condyles, and in a similar manner across through the neck of the radius and the ulua, just below the coronoial process, and forward and inward so as to reach beyond the entire joint and out at the ulna edge of the arm—the entire joint dropping upon the floor.

Dr. Andrews and myself were called, and upon a careful examination, it was found that the remaining connection between the arm and forearm consisted of perhaps a little more than a third of the integuments, the biceps muscle, and perhaps small portions of the brachial artery, the median and brachial nerves, the accompanying cellular and adipose tissues, &c., all of which could have been severed by a slight stroke of the knife.

There was a fair state of the circulation in the limb, and after taking all things into account, it was decided to make an effort to save it. The wound was well trimmed of its ragged tissues, the bones squared off, several arteries ligatured, the limb extended, the bones brought in coaptation, the integuments drawn together by sutures, adhesive straps and bandaging to cover the wound as much as possible, and the limb laid upon an anterior jointed splint and placed in an elevatod position.

With this great loss of substance, a consolidation of the bones seemed to be the most favorable result that could be expected, and the treatment adopted was such as to favor that object. Very little inflammation ensued, and scarcely any sloughing took place. All things went on very kindly; and, at the end of eight weeks, the wound was well nigh cicatrized.

At this period a very little flexion was made and maintained, increasing it by little once in a week, or so, till it was brought to the right angle, adapted to his business, and it was decided to keep it in this position till bony union should take place. From time to time, as the limb was examined, it was found that there was a gradual improvement in strength and firmness; and it was confidently expected that a bony union would soon be established. But after an unusual delay, in looking at the limb, and at the time removing the splint it was noticed that the arm sprang back a little, upon which the patient was requested to flex it, and it was found that he had some control over it. From this time the plan of treatment was changed to frequent motion and friction of the limb. There has been a gradual increase of motion and strength from that time; and now he has the power of flexion and extension of the arm and of pronation and supination of the hand to a considerable extent. In flexing and extending the forearm, I think he has a swing of the hand of fifteen inches. The arm is shortened three and a half inches.

For the last three months, Mr. F. has been regular at his work, a chair-maker, from morning till night; and he says at some branches of his business he can perform as much as ever he could. In lifting from the floor the arm is as strong as the other; but in raising the weights with the arm in a horizontal position, he cannot do as much. He has a good use of his hand, excepting the little and ring fingers, which are flexed a little; still he has some use of them, with imperfect feeling. The ulnar nerve was destroyed. He has a posterior jointed splint fitted to his arm, which he wears constantly.

The question arises, from whence comes the power of extension? I will leave others to decide the question,—and I will simply state that supination precedes extension. EDWARD BARTON.

Orange, August 5, 1862.

ON THE TREATMENT OF ACUTE RHEUMATISM,

CONSIDERED WITH REGARD TO THE LIABILITY TO AFFECTIONS OF THE HEART UNDER DIFFERENT TREATMENT.

[Read before the Royal Medical and Chirurgical Society, by W. H. DICKINSON, M.D., Cantab, &c.]

THIS paper was based upon a tabular condensation of the cases of acute rheumatism which were admitted into St. George's Hospital during the five years ending on December 31st, 1861, and in whom the heart was, on admission, unaffected by the disease. The method of treatment adopted in any particular case depended very much upon the chance of the patient coming under one physician rather than another; and a comparison of the results would, to a certain extent, be a guide to the value of the means used. The cases, therefore, were classified according to the treatment made use of. As the main object of the investigation was to ascertain the effect of remedies in preventing cardiac mischief, the arrangement was not altered by measnres adopted in consequence of its occurrence. The tables were fourteen in number. The first gave results of 8 cases in which venesection was early resorted to, other medicines being at the same time used. In 3 of the cases endocarditis or pericarditis was clearly recognized. In 1 there was incomplete evidence of cardiac derangement. The heart, therefore, was absolutely uninjured in only half the number. The patients remained in the hospital for an average period of forty-one days. Bouillaud, who is the great advocate of bleeding in this disorder, and trusted to it almost exclusively, expresses his opinion that such complications are the rule, and not the exceptions. The second table gives the result of 6 cases treated solely with repeated doses of calomel and opium. In two subsequent classes were seen the effects of the same medicines aided by saline draughts, with and without nitre. The progress of the disease under each plan appeared to be much the same. The total of 24 cases presented 6 of inflammation of the heart or its membranes, of which 2 proved speedily fatal. The average number of days in hospital under mercurial treatment was thirty-seven.

The action of some reputed spacific remedies was then considered. With regard to opium, reference was made to some tables published by Dr. Sibson in the *Association Medical Journal.* 21 cases are here recorded, in which, when the treatment was commenced, the sounds of the heart were natural. Opium was given in frequent doses, sometimes as much as a grain an hour, besides other remedies supposed to have an effect in rheumatism. No less than 14 of these cases, or exactly two-thirds, manifested while under treatment symptoms of valvular or pericardial inflammation.

The cases, 7 in number, treated with nitre alone, gave only 1 of cardiac complication. The average duration of the treatment was reduced to twenty-seven days. Further evidence in favor of nitre was deduced by comparing the results of cases treated with saline remedies alone, and those which had salines with nitre in addition. A table contributed by Dr. Basham to the "Transactions" of the Society was quoted. Of 67 cases of acute rheumatism treated with large doses of nitre, the heart being in each case unaffected at the commencement of the plan, 6 only had symptoms of inflammation of that organ.

In considering the treatment of saline remedies, the use of the term was limited in an arbitary manner. It was assumed that the salts which the potass and soda form with the vegetable acids undergo such changes in the system as to become equivalent, or nearly so, to the same quantity of alkali in combination with carbonate acid. Whether a certain quantity of potass is given as citrate, tartrate, or carbonate, the effect upon the urine and upon the system generally was held to be much the same. The arrangement was made accordingly. Those patients treated with an aggregate of such salts not reaching three drachms a day were considered as under saline treatment; those taking as much as three but less than four drachms, as under partial alkaline treatment; those taking from half an onnce to an ounce and a half, as under full alkaline tseatment.

Sixty-two cases appear to have been subjected to saline treatment, alone or with other remedies. These afforded a proportion of heart affection of 1 in 3·6. The conclusion was that salines in such quantities had but little influence upon the course of the disorder; when used in conjunction with more potent remedies, the result always correspond with the observed effect of the additional medicines when used independently.

With the increased doses, which the author distinguished as partial alkaline treatment, no diminution of the heart symptoms was observed, although the disorder terminated in rather a shorter time.

The full alkaline treatment was exemplified by two tables. It consisted in the administration of the salts which potass and soda form with carbonic and vegetable acids, in quantities varying from half an ounce to an ounce and a half daily. Half a drachm of the acetate, with twice as much of the bicarbonate, of potass, dissolved in the haustus ammoniæ acetatis of the hospital pharmacopœia, furnished an ordinary form of prescription. This was given every four or six hours, and sometimes made to effervesce by the addition of a little citric acid. Salts of soda were sometimes resorted to. The total of 48 patients thus treated passed through the dangers of the disease, with only a single instance of any cardiac affection. In the exceptional case the murmur came on within twenty-four hours of the commencement of the treatment, and did not prove permanent. The average number of days in hospital, when this treatment was applied simply, was 25, the smallest of all; when other medicines, as colchicum, were used in addition, five days were added to the average period. Dr. Garrod's published cases, in which bicarbonate of potass was used alone, were quoted as rather less successful than those at St. George's, in which neutral salts were given in addition. 24 of Dr. Garrod's cases afforded 3 of inflammation of the heart or its membranes. It was concluded that the carbonates of potass and soda, and those of their other salts which in the body are capable of being converted into the carbonates, exert an especial curative power in rheumatic fever, and, if given in time, will completely protect the heart from the dangers by which it is surrounded. Taking the proportion of heart affection under the alkaline system, 1 in 48, and, with this as a standard, reviewing the other plans of treatment, the result was striking. 113 cases where other remedies were used gave 35 instances of cardiac mischief, or a proportion of 1 in 3·2. Nitre, next to the alkalies, was the most successful. The general symptoms were shortened under its use, and the frequency of cardiac inflammation was reduced to 1 in 10. Regarding the other remedies which have been credited with the cure of acute rheumatism, it simply became a question which were useless and which injurious. Mercury allowed a proportion of cardiac inflammation of 1 case in four. Saline treatment gave a worse result. With bleeding, one-half of the cases became thus complicated. Under opium the mischievous influence of the disorder attained its maximum. Two-thirds of the cases so treated had the symptoms of endocarditis or pericarditis. With the exceptions stated, it was maintained that the more active the remedies, the more untoward, generally speaking, is the progress of the disease. It was shown that the use of colchicum retarded the recovery of the patient.

The practical deduction was, that acute rheumatism is best treated by giving at short intervals a solution of nitrate, acetate, and bicarbonate of potass in such doses that ten or twelve drachms of the two latter salts together are taken in the twenty-four hours. Half a drachm of the acetate, with a drachm or a drachm and a half of the bicarbonate, and ten grains of nitre, would answer the purpose.

A brief review of the history of the alkaline treatment of rheumatism concluded the paper.

Dr. **Goodfellow** had long been in the habit of employing the nitrate of potash in cases of rheumatism, in doses of ten grains to two scruples every four hours. This mode of treatment had no material influence on the duration of the disease, but prevented cardiac complications. In one case out of sixty only was the heart affected. He combined, however, with the nitrate the bicarbonate of potash. He always took the precaution in these cases of covering the chest with cotton wool. He had found this mode of proceeding most effectual in preventing cardiac disease. He had tried other remedies, however, in combination with the nitrate of potash, such as Dover's powder and the acetic extract of colchicum. Opiates at night with the colchicum seemed to cut short the duration of the disease, and prevent heart affection. Under this treatment also relapses were rare.

Dr. **Fuller** had long employed alkalies in cases of rheumatism. Under this treatment he had never found the heart become affected, except in two or three instances, where inflammation had set up within twenty-four hours after the commencement of the treatment. He was in the habit of employing large doses of the alkalies with a view of producing an alkaline condition of the urine. When this was effected, he thought that it was unnecessary to test the condition of the heart, as he considered the patient safe from such complications. The duration of the disease under this treatment he thought was decidedly lessened. It was not necessary that the alkali should be potash, for the carbonate of soda had the same effect. His experience, however, of the carbonate of ammonia was not productive of such decided results.

Dr. **Gull** remarked that alkalies had been extensively employed in Guy's Hospital in cases of rheumatism. Dr. Golding Bird was the first to recommend this plan of treatment. The practice, however, in his (Dr. Gull's) hands had proved a decided failure. He had never thought that there was any proof that there was an acid state of the blood or urine in these cases. The perspiration was not always acid in the worst forms of the complaint. In some cases the patients' sweat had assumed three distinct forms—alkaline, neutral, and acid. He could, therefore, see no expectation of relieving the patient by adopting a merely chemical plan of treatment. Colchicum, Dover's powder, hot baths, nitrate of potash, opium, and other remedies he had tried without satisfactory results. His experience led him, therefore, to treat the disease empirically. After all, he thought that it should be regarded mainly as an affection of the nervous system. He had been most successful by keeping the patient perfectly quiet, confining him to his bed, preventing the influence of all disturbing causes, and supporting him on the simplest diet. He had found rheumatism thus treated usually do well. Under it the heart was kept from disturbance, and consequently from anything like inflammatory disease. This treatment, with the addition of a little extract of taraxacum and peppermint water, administered as a placebo, had been most effectual in his hands. Out of sixty-four cases which he had thus treated, there was scarcely a case in which the heart had been affected. The author of the paper had adduced forty-eight cases in support of the treatment which he had advocated; but this was altogether too small a number on which to found a theory. Rheumatism was so different at various times, that it must always be studied in reference to what he might call its natural history. He doubted exceedingly whether the alkaline treatment could be regarded as specific against the occurrence of the heart disease. Dr. Goodfellow, who strongly advocated the employment of the nitrate of potash, seemed glad afterwards to add something else to his remedy. If the alkaline treatment was so successful, why did he do so?

Dr. STEWART agreed in the main with the observations made by Dr. Gull. He had found that the perspiration in cases of rheumatism was not always acid. On the contrary, he had found it in some instances intensely alkaline. The disease must be treated on common principles. Under simple remedies, with due regard to the conditions of the patient, the greatest success would be attained.

Dr. O'CONNOR differed from Dr. Gull in regard to his do-nothing treatment. On the whole he thought the general treatment by alkalies noticed in Dr. Dickinson's paper the best; but he considered that the bicarbonate of potash should be combined with the nitrate of potash or the acetate of ammonia, so that they might act upon the skin; the object of treatment being, in fact, to eliminate from the system a morbid matter. Rheumatism was a disease which must be treated according to the symptoms presented to us, and the condition of the patient. In exceptional cases moderate bleeding might be advantageously employed. In other instances, the administration of opium and calomel might be indicated. In fifty cases which he had treated at the Royal Free Hospital, only two women had been the subjects of cardiac inflammation, and one of those had cardiac affection on admission. All the patients recovered.

Dr. DICKINSON, in reply, stated that the doses of alkaline remedies administered in the cases which he had brought forward were much larger than those which had been resorted to in Guy's Hospital. To be effective the remedy must be carried out with energy and perseverance, and it was only in such cases that the treatment which he had advocated could be fairly tested.

Dr. Gull, in reply to Dr. O'Connor, remarked that so far from his treatment of rheumatism being liable to the charge of a do-nothing system, it was on the contrary, a most careful and active mode of treatment. The patient must be watched and subjected to the most stringent rules which the medical attendant could adopt. So far from doing nothing in such cases, he did everything that the nature of the case under his treatment required. By regarding rheumatism as a disease essentially differing under different circumstances, the practitioner who took into consideration the state of the patient and the indications presented to him, would, in his opinion, be more successful than the man who adopted a theory as applicable to all cases, and carried it out.

Dr. Babington had been surprised that in the discussion which had taken place no allusion had been made to the influence of lemon-juice in the treatment of rheumatism. No remedy would appear to have been more effectual in controlling its duration, or preventing its cardiac complications.

Navy Medical Intelligence.

The following letter, received by a medical gentleman of this city from one of the surgeons of the Mississippi squadron, has been handed us for publication.

Mississippi River, July 23d, 1862.

My Dear Sir,—I find myself very comfortably situated here, excepting the two drawbacks from which we all suffer—intolerably hot weather and mosquitoes. Our fleet are now below Vicksburg, having re-passed that place one week ago, for the purpose of destroying a rebel ram which came from Yazoo river, and had the audacity to run the gauntlet of the combined fleets of Davis and Farragut; not one of the vessels of which had steam enough up to pursue her. For the purpose of destroying this rebel craft, our fleet fell down stream and stormed the city that evening, but in the darkness of the night the ram could not be found. We are now on the eve of another attack, which I hope will be more to the purpose.

You have no doubt heard through the newspapers all about our first passage of the batteries of Vicksburg; the engagement lasted two hours and was a severe one, notwithstanding our comparatively small list of casualties—16 killed and 40 wounded. Before the engagement came off, I was ordered temporarily to the gunboat Scioto, her surgeon being absent on sick leave. We were struck eight times—six times in the hull, and twice in our foremast. The first shot struck us in our water-way, on the starboard quarter; it was very close, for if it had been six inches higher up it would have cleared our quarter deck; the paymaster and myself were covered with splinters. The last shot dismounted the rifle Parrot gun on our forecastle, killed one man and wounded three—two slightly, one severely. The left arm of the latter was terribly shattered from the elbow down, so that I was obliged to amputate, and a pretty hard time I had of it, for my steward was thoroughly unaccustomed to the duties of an assistant, and I had to ligate the main arteries myself; he did not even know how to apply the tourniquet. Had I not been on deck, I believe this poor fellow would have bled to death; I saw him coming aft where I stood with his shattered arm hanging by his side, and the blood pouring down his pantaloons, leaving a pool at every step. I immediately ran towards him, compressed the brachial artery, and had him carried bebelow. Before he got there he had fainted, but we revived him with stimulants, and after the amputation he was quite bright. I am glad to say he is doing well, and that his stump is now nearly healed. I had a fine opportunity of witnessing this fight, for I was on deck through the heat of the action. I obtained permission from the first Lieut. to be there, it being just as safe for me there as in the wardroom, which is used as a cock-pit on these small vessels. The shot whistled around us very lively that day; in the grey of the morning we could see every gun explode; there was something grand about it, yet it is a grandeur that I am free to confess I do not want to see very often.

During the last engagement, I was up the river at Cairo, having been sent there in charge of thirty wounded and sick sailors. On this expedition we met with an accident which, had it occurred in the night, might have proved serious. When about six miles below Fort Pillow our steamer ran upon a snag, and immediately commenced to sink. All was consternation on board. I had the greatest difficulty in keeping my patients quiet, some of whom were for jumping overboard. Fortunately for us all, Capt. Queen of the mortar flotilla, was on board, and immediately took command of the steamer (for the captain was totally inefficient and had no command over his crew), and ran her alongside the shore, and in five minutes she was resting firmly on the bottom in ten feet water. We got all on board safely off, and immediately sent up to Fort Pillow for aid. After remaining on the shore for ten hours, the Sanitary Commissioner's steamer Tycoon came for us, and carried us safely to Cairo.

I understand, since commencing this letter, that we are to leave this river to-morrow for Pensacola; we shall therefore leave Davis to take charge of Vicksburg and the ram. All hands are rejoiced at this, for we all long to see the blue waves of the ocean.

There is a great deal of sickness among our fleet here. I prescribed to-day for upwards of eighty; many of which, are cases of remittent fever. We have also a number of cases of intermittent. Diarrhœa and dysentery also prevail to a great extent. Quinine is our great remedy down here; that with elixir of vitriol, are our stand-bys.

Dr. Clark, whom you may remember, is down here and stationed on the Scioto.

THE following assignments have been made of medical officers: Medical Inspectors, Perley and Cooledge to duty in the Surgeon-General's office and in the Military District at Washington; Medical Inspectors Cuyler, Keeney, Lyman, and Allen, to report in person to the Assistant Surgeon-General in St. Louis, for duty in the department of the Mississippi. Medical Inspector Mussey and Assistant Surgeon Parry to report to General McClellan in the Army of the Potomac.—*Am. Medical Times.*

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BOSTON: THURSDAY, AUGUST 14, 1862.

On Military and Camp Hospitals, and the health of Troops in the Field. Being the results of a Commission to inspect the Sanitary Arrangements of the French Army, and incidentally of other Armies in the Crimean War. By L. Baudens, inspector and member of the Council of Health of the French Armies, formerly Surgeon-in-chief, and first Professor of the Perfecting School of Val-de-Grace, etc. etc. Translated and annotated by Franklin B. Hough, M.D., late Inspector of the United States Sanitary Commission. New York. Baillière Brothers. 16mo. pp. 260.

The translator of this interesting and valuable little volume was prompted to his work, as we learn from his preface, by the desire to render the results of the dearly-bought lessons of the Crimean war useful to the American armies in the present war. Surely, if prevention is better than cure, and if disease slays more men than sword or bullet, even in war, as it undoubtedly does, we cannot have too much of the experience of others to help us in averting the dangers which the past year has shown cannot be too carefully guarded against. The principles of military surgery are comparatively simple, and little can be said about them now which can present any great claim to novelty; but the varying circumstances of position, food, clothing, atmospheric conditions, etc. present so many new problems, bearing on the welfare of an army from day to day, and call for such constant ingenuity on the part of the medical officers, such a command of resources to meet the exigency of the moment with whatever means may be at hand, that the narration of such an experience is full of the novelty and charm of adventure. Such is the character of the book before us. It is crowded with interesting and valuable—valuable because practical matter, from beginning to end. The author was eminently fitted for the office which he undertook, having been at the time of his death a devoted and distinguished medical officer in the French army for thirteen years; during which he had been Surgeon-in-chief of the military hospital of Val-de-Grace, in Paris, for ten years, and the balance of the time Medical Inspector to the French Army in Corsica, Italy and the Crimea. He died on the 27th of January, 1858, from disease of the liver, contracted in the service of his government while in the east.

Turning over the leaves of this interesting volume we came to the chapter on rations, which contains many wise reflections and suggestions. It seems that the French soldiers had to try their teeth on the same kind of biscuit as that which has too often formed the staple food of our own regiments. Neither did they like it any better than our Army; and Dr. Baudens objects strongly to its use, where army bread can be procured. He says it "is extremely absorbent, acting on the stomach like a sponge, and after having exhausted the salivary glands in mastication, it absorbs the gastric juice, so that not enough remains for proper digestion." The translator, in a note, states some interesting facts with regard to the consumption of bread in our army, which show that the men have every inducement to use it in preference to biscuit, when they can get it.

"In the American army, the regulations allow, under ordinary circumstances, the issue of flour at the rate of twenty-two ounces daily to each man, in place of the same weight of bread. This flour, drawn by the Division, Brigade, Regiment, or Post, is baked by soldiers detailed for the purpose, in ovens made of sheet iron, covered with brick, stone, or earth, or in ovens of brick alone, and the savings that result go towards establishing a fund for the benefit of the posts or regiments concerned. There are probably no regiments in the service, in which a sufficient number of masons and bakers could not be found, to construct and operate these bakeries. For purposes of economy, they are often worked day and night, by relays of men. The savings have in some cases exceeded 33 per cent., and will, in most if not all, come up to 30 per cent. The economy of the arrangement appears in the difference of transportation, and in the quality of the bread, as well as in the savings upon weight; and the facility with which negligence and abuses can be corrected, is so great, that they may be checked upon first appearance. In Gen. Kearney's Brigade, of four regiments in Franklin's Division of the army of the Potomac, the savings in two months, in the winter of 1861—2, amounted to $3,436."

The French army suffered much from the want of a sufficient supply of vegetables as our army has done, and as all large armies must; it is almost impossible to keep up a constant supply of these antiscorbutics in quantity sufficient to keep the fluids in a healthy condition. And notwithstanding the impression that every Frenchman is by nature a cook, we find the same complaints as among our own troops, of the bad cooking in some of the regiments. Soup, we believe, constitutes a much larger proportion of the diet of the French than the American soldier, and the fare of our troops would be greatly improved by substituting it to a greater extent for the salt meat which they turn away from so often with loathing. "Soup makes the soldier," says M. Baudens, "but its quality depends upon the cook."

"Every soldier takes his turn in cooking, as he does in mounting guard; but this is wrong. In the same regiment, some companies eat good soup, and some bad. The army officers do not usually trouble themselves with these details, so important—for the first condition of health is that the stomach be satisfied. In the Crimea, the troops that best sustained privations and fatigues, were those commanded by colonels careful of their men. Let us take an example of two regiments, which left the camp of Saint Omer at the same time, arrived together in the Crimea, in October, 1855, encamped side by side, endured the same vicissitudes of weather, and performed the same services; the one preserved on the 1st of April, 1856, 2,224 soldiers of an effective force of 2,676 men, while the other, with an effective force of 2,327 men, had 1,239 only left—and these losses did not include those wounded in war! In the armed naval service, our commanders of vessels supervise the preparation of meals for the crews, and observe most punctually the hour for breakfast and dinner, which is never delayed, anticipated or interrupted. It is earnestly to be wished, that the same scrupulous care might find its way into our land armies, and that these wise hygienic measures should never be infringed upon, except in cases of absolute and manifest necessity. We pay rewards to those colonels of cavalry whose squadrons preserve the greatest number of horses, and these rewards excite an excellent and profitable emulation. We could have similar, but more important and happy results, were we to grant similar tokens to colonels, whose battalions preserved the most men in best health." All this is equally worthy of consideration by our own officers.

Of the use of stimulants in the French army, M. Baudens says, "Wine does not form a part of the ordinary rations of the soldier in a campaign. That which was distributed to the army of the East was generally good. Each soldier drew half a pint, and the officers were allowed to take daily from the stores, besides their rations, a litre (0.264 gallon) of wine, for which he paid fifteen cents, while the private dealers sold wine for three or four times that sum. During the epidemic, Marshal Pèlissier doubled the rations. For our sick we had generous wines, which the adminstration gave liberally. Brandy alternated with wine, the ration being about a third of a pint. Taken immoderately, brandy is very dangerous in winter, and exposes the drunkard to perish from cold; but in moderation it excites a salutary reaction. M. Laurent, a ship lieutenant, had charge day and night of a battery before Sebastopol; he preserved the health of his cannoneers through the winter by giving them, at stated intervals during the night, three warm grogs of brandy, through which the system gained great power to resist the cold. Coffee was given out instead of wine or brandy, the rations consisting of sixteen grammes (about half an ounce) of coffee, and twenty-one grammes (three fourths of an ounce) of sugar. It has become among our soldiers in campaign a healthful and favorite drink, and is found to prevent the intestinal looseness so frequent in warm climates. The Arabs take daily, several light infusions of coffee, and when in their country, we ought to be governed by their traditional usages, founded upon reason. The soldier, by steeping some pieces of biscuit in his coffee, makes at will a very nutritious soup, of which he never gets tired. Coffee is especially useful on a halt, or in the trenches, and, in short, anywhere when the soldier has not time to prepare his soup. It refreshes and enlivens, while it does not prevent sleep after a day of fatigue in the open air. It recommends itself to the government, being easily kept and carried. It should not be ground long before use, because it then loses its volatile aromatic principles. It may be roasted and distributed in the grain. In the Crimea we gave the troops little mills, which readily prepared it for infusion. The ingenuity of the soldiers furnished means often original, and not always prosaic, for preparing it. I have seen in our camps, the coffee ground by a ball rolled about in the half of a bomb shell."

With regard to the cleanliness of the French troops, as contrasted with the English, we find the following:—

"The habits of cleanliness which distinguished the English army, should have been followed in our camps. They washed their body linen in warm water, and changed twice a week, but our soldiers were not so careful. Filthiness checks the functions of the skin, and engenders vermin. When a patient arrived at Constantinople, we first washed his garments in boiling water. On a review day, our soldiers presented, by their new and well-brushed uniforms, an irreproachable military aspect; but these fine battalions left, as they passed, the marked and well-known stench of the barracks. Our quarters for troops shine with the greasy filth of daily neglect. It is forbidden — would any one believe it?—to scrub the floors, the benches, and the tables, for fear of wearing them out. Why cannot a barrack be kept as neatly as a ship, and why cannot floors, waxed and rubbed by the soldiers, take the place of the imperfect tiling in the rooms? We have introduced, at length, this luxury into our military hospitals, in spite of the opposition of routine; and, upon entering the barracks, may ask with surprise, why such useful reforms are so slow in finding their place here?"

M. Baudens condemns the huts used by the French soldiers in the Crimea, the floors of which were several feet below the surface of the ground, as being very prejudicial to health; and Dr. Hough says of the somewhat similar arrangement adopted by our soldiers of the army of the Potomac, that "The pernicious habit of sinking the floors of tents below the surface of the ground has almost always been punished by increased sickness and mortality. Upon many occasions, while inspecting the camps in winter quarters, in the army of the Potomac, in the winter of 1861—2, the writer has observed that the sickly companies and squads were those that lived in tents with excavated floors. This disregard of health should be charged to the officers permitting it. The sides and floor of such a tent can never be dry, or the ventilation perfect, unless, perhaps, in cases where an open wood fire with a good draught is maintained. Carbonic acid gas will settle into the bottom of the tents, where the men lie, and typhoid fevers, rheumatism, and catarrh will swell the numbers attending the sick call and filling the hospitals. The practice prevents the frequent removal of tents to new grounds, and renders cleanliness impossible. The floor of a tent, somewhat raised above the natural surface, well drained, and previously dried by the burning of brush, presents the opposite conditions for the maintenance of health."

In the matter of clothing, the French army availed itself of the customs of the region they were in, as they had previously done in Africa. From the native Tartars they borrowed the *Crimèenne,* an overcoat which proved of great value, some of the features of which might, we think, with great advantage be adopted by our own troops. In fact, it has seemed to us that a great-coat could hardly be contrived which so poorly answers the purpose as that put upon our soldiers. The cape is too small, the cloth is not thick enough—being made single-breasted it gives but a scanty covering for the chest, it is without lining, and does not protect the neck sufficiently. A hood which can be drawn over the head, such as forms a part of the *Caban* hitherto worn by the French soldiers, is a capital thing. We have been struck with the air of comparative comfort presented by a French soldier on guard in a pouring rain, with the hood of his *Caban* drawn over his fatigue cap and about his face, completely sheltering the neck from wind and rain. The *Crimèenne,* it seems, is an improvement even upon this. M. Baudens deocribes it as follows:—

"The *Crimèenne* is a long and ample, hooded cloak, with a little cape, and falls to the middle of the leg. The cloth is coarse, but warm, and almost water-proof. Excepting the general officers, who wore an overcoat trimmed with fur, everybody wore the *Crimèenne,* and it replaced the African *burnous,* and the *Caban.* It proved very useful, and will perhaps be regularly adopted, as it guards the soldier from diseases acquired so often by passing suddenly from the high temperature of the guard-room to the cold outside air, in mounting guard at night. The hood shields the head and neck from the cold, the wind and dampness: prevents the engorgement of the glands of the neck, and the bronchitis, to which they are liable from the chill. A preparation of India-rubber would easily render the little cape which covers the shoulders water-proof. This garment would replace with advantage the blanket, which the soldier carries upon his knapsack, and which gives him so ridiculous an appearance. The blanket, so awkwardly perched upon the knapsack, when wet, is very heavy, and dries with difficulty. When dry, it weighs about three pounds and a half. Therefore in summer, in order not to load the shoulders of the men too much, they give them only a half blanket, the other half being kept for the approach of winter. The storage of these blankets is not easy, and the army runs the risk of being deprived of them if their supplies cannot follow them. But the *Crimèenne* has none of these inconveniences, is not so heavy, and can be made still lighter, and the knapsack is relieved from the difference in weight."

French soldiers, it seems, do not wear flannel under-shirts, but a belly-band of flannel instead. This, M. Baudens complains, the conscripts did not appreciate the value of, and laid it aside or lost it, to their great injury.

The French surgeons were overtasked very often by the arduous duties imposed on them, and were compelled to extemporize a class of dressers from among the troops who did most efficient service. This hint is too valuable to be lost. In the ranks of the new levy there must be many who will be entirely competent for such duty, and an immense amount of suffering might be spared by training an efficient corps for this service. We quote M. Baudens again.

"It should be remarked that, at times, the medical staff was so much pressed that human endurance and the most zealous activity could not supply the requirements. However numerous, in time of battle or of an epidemic, they proved very inadequate to our wants. When a half day's battle sends to a hundred physicians in the field hospitals six or seven thousand wounded at a time, could they even place so much as a single compress and bandage upon each wound? Much less could they perform upon each the operations indicated by surgery.

"To supply this want there was created, in the Crimea, a class of attendants of subordinate grade, who rendered very important services. Our system of recruiting makes our army the vivid image of our society, and assembles under the flag its manifold elements. Among the convalescents were often found men of education, bachelors of arts, and even lawyers. Some of these returned to their families on sick leave, but we retained those who appeared capable of assisting the physicians. These new duties, by employing their minds, hastened their recovery, and some, becoming fully restored, returned to their corps, to be replaced by others. These useful auxiliaries are called *soldier-dressers*. Scrive, Thomas, and Lustreman, in the Crimea and at Constantinople, were warm in their praises of their promptitude and skill. When the typhus decimated our medical corps, we feared, for a time, that we should be left without physicians, and urged the Minister of War to send some as soon as possible; but he had none at his disposal, and recruiting failed to supply the want.

Thanks to our soldier-dressers, we triumphed over our serious difficulty; but without them, our medical service would have been impeded. These subaltern agents evinced a zeal, aptitude, and intelligence, rarely witnessed except in the French army. They were intrusted with the care of the visiting pass-books, the distribution of the food and the medicines prescribed, the application of simple dressings, poultices, blisters, and similar services. They prepared with great skill the splints for fractures, and even applied, in a faultless manner, under the direction of the chiefs of the service, the dressings of amputated limbs."

Want of space forbids our entering into a full analysis of those parts of M. Baudens's volume which treat especially of his surgical and medical experience in the armies of the East. They are replete with wisdom, and are as valuable as those portions which we have most dwelt upon, which mainly concern the hygienic condition of the soldier. The work is a precious contribution to the literature of military medicine.

INFANTILE ERYSIPELAS—APPLICATION OF A MIXTURE OF TANNIN, ALCOHOL AND CHLOROFORM—PROMPT RECOVERY.—We know how grave a disease infantile erysipelas usually is; is the erysipelas which is sometimes developed about vaccine vesicles less serious in its character? We are quite disposed to think so. However the case may be, the method employed by M. Loiseau, of Montmartre, and said to have been followed in many cases by excellent results, although as yet it has been tried only in the erysipelas resulting from vaccination, seems to us none the less deserving of being brought to the attention of our readers.

Being called to attend a little girl about a month old, who had been vaccinated a week previously, M. Loiseau found four very large vaccine vesicles, on each arm. The circle of erysipelas which surrounded each vesicle, ran into the next, and thus the whole anterior surface of the arm was covered by it. Her pulse was very frequent, and the agitation extreme; the infant had refused to nurse since morning, and cried incessantly. M. Loiseau applied immediately to the whole of the affected surface a mixture of tannin in brandy, with a small quantity of chloroform. The application was repeated at first at intervals of ten minutes. The child ceased crying almost immediately, took the breast and went to sleep. The application was continued every quarter of an hour, then at intervals of half an hour until night. The child was seen on the following morning; it was calm and had continued to nurse as usual, and the erysipelas had made no further progress.

Undoubtedly one would not presume to say in this case that the erysipelas might not have been self-limited; but we agree with M. Loiseau in regard to it, that the immediate relief to the suffering was very probably due to the treatment.—*Journal de Médecine de Bordeaux* from the *Gazette des Hopitaux.*

From an admirable letter on army medical service, published in the *Buffalo Medical and Surgical Journal,* by Dr. Sanford B. Hunt, we take the following extract.

"*Amputations.*—It is universally conceded that amputations on the field are far more successful than secondary operations. The soldier does not come off the field horrified and crushed down by unexpected and sudden shock, like the victim of a railroad accident. He has his wits about him, had some notion of being hit, finds it hurt him less than he expected, and so meets the amputating knife with a nervous system capable of enduring further shock. In fact he is usually in a state of exaltation that upholds him during the ordeal. Thus it happens that very high amputations of the thigh, even, have, with proper after treatment, a fair chance of success, if performed early. But when the other course is taken, when the sufferer lies all night on the field, is borne in the morning to an ambulance, jolted over bad roads, and transferred, days afterwards, to a hospital, he has become worn, jaded, incapable of endurance, irritative action has set in and the secondary amputation is fatal.

"The truth of these remarks is an axiom, yet there are a vast number of cases which seem compelled to be exceptions. A bullet strikes the upper third of the femur, buries itself in the bone, perhaps without absolutely fracturing it, and the case becomes one of doubt, justifying delay. So too with wounds of the joints, especially the elbow, which somehow endures disaster better than any other joint. Such cases are those which reach the General Hospital and come under the care of its surgeons. At first, immediately after the Williamsburg battle, the disposition in the various hospitals at Fortress Monroe was to operate. The knife was used with heroic freedom. It would be invidious to specify the surgeons who made that raid upon humanity. A bullet was looked upon as a prize worth any amount of digging for, and some ghastly and even fatal wounds were inflicted by the scalpel in a prolonged search for an unoffending pellet of lead. Amputations seemed particularly attractive, and many a man lost his thigh at the upper third, to die next day and exhibit on the post-mortem a fracture splitting the bone into the acetabulum. It is hardly necessary to say that these were cases in which no operations should have been had. The opportunity for success was lost when the surgeon on the field decided not to amputate, and in the General Hospital it only remained to extract such fragments of bone as could be readily reached, to keep the limb moderately extended, and then give the poor fellow a chance to pass the dangers of tetanus and drag through the perils of an exhausting discharge with its irritative fever, and perhaps its purulent absorption. Truly this is a melancholy choice, but when you know that the patient will die under the knife, it is only fair to let him fight it out with Nature.

"The lesser amputations, however, escaped this criticism, except when hospital gangrene supervened, as it did at the mis-named Hygeia Hospital. The result of the amputation depended on the magnitude of the tissues cut, and in arms or legs the termination was mostly favorable, excepting always hospital gangrene. It was, I believe, only in the Hygeia Hospital that this terrible scourge exhibited itself. That building was formerly a hotel inclosing a court yard, the yard itself bisected by a long two story building, and a mouldy wooden pavement covering the ground and forming a cloaca for dampness and decay. Shaded with trees, gloomy and ill-ventilated, it was no wonder that gangrene showed itself in wards which so far as sanitary police was concerned, were well kept. The fatality from this source became so great—killing off so many of the capital operations—that Medical

Director Cuyler closed the building and had nearly evacuated the premises, when the seven days retreat compelled its re-opening and renewed the gangrene. This hospital was therefore finally abandoned about the last of July.

"The mortality from capital operations should not, however, be attributed altogether to hospital gangrene. It was quite as bad as it could be in other institutions. Some of the distinguished eastern surgeons who volunteered their services, would be troubled now to find one of their patients on this side of the Styx. One such operated largely in Mill Creek Hospital, ligating arteries, resecting bones and amputating. Of all on whom he laid his knife, not one is now alive to tell the tale of heroic surgery. I make this statement with a knowledge of its truth. About this time Brigade Surgeon John W. Hunt, a Western New Yorker, took charge at Mill Creek. Preliminary to other reforms, he carefully locked up the surgical instruments and relied on a pair of scissors and a forceps to treat several hundred wounded. He certainly killed nobody, and when the records of that hospital shall be written up, they will show a triumph of conservative surgery. Not only was the mortality largely decreased, but in hosts of cases the patients were restored with useful limbs With Surgeon Hunt,—who, I am sorry to say, is not a relative of mine—should rank his able friend, Surgeon McCay, of the Chesapeake Hospital, a mammoth institution, unfavorably constructed and located, but nobly managed. And here let me add that a full breast of the milk of human kindness is a grand essential in an army surgeon. Hunt and McCay were kind-hearted as well as skilful and judicious.

"The result of resections of bones will hardly warrant a more favorable record than I have bestowed on high amputations of the thigh. Possibly in civil practice or in the hospitals, better results might be obtained. They were not successful at Fortress Monroe, and conservative surgeons did not hesitate to condemn their frequent employment.

"In the ligation of arteries, the rules of general surgery seemed strictly applicable. When great arteries are tied, the parts beyond are very apt to die, yet there is far less objection to these ligations than to resections and amputations. A patient is bleeding from a deep-seated branch of the external carotid, death is imminent, and the tying of the common carotid will at least prolong, if it does not save, his life, so that the surgeon can reconcile his conscience with his knife, which, by the way, is a somewhat important, though often neglected, preliminary to any important act in military surgery.

"A word should be said here about the probable proportion of operations to cases. On the field it is large, of course, and I have endeavored to show there is the place where most of the operative surgery should be done. But as cases reached the great hospitals at Fortress Monroe and Newport News, the surgeon not eager to cut, would find that the regimental surgeons had done pretty nearly all that was justifiable, and that nothing was left for him, except a large faith in nature, and a few secondary operations rendered necessary by complications occurring at a later day. They will not average one operation to a hundred cases. It remains to treat the majority *pro re nata*, to apply cerate to the kindly wounds, and water dressings to those inflamed, to watch carefully their cleanliness, to support with wines and tonics under exhausting discharges, to temper irritability with opium, and to secure for them as good a diet and as pure an air, as circumstances will permit.

"All this does not accord with the picturesque idea of an army surgeon with sleeves rolled up, and up to his ancles in blood; but such pictures belong only to the battle-field, and they are far less common than the lively imagination of 'Sawbones' would paint. To sum up, then, the treatment of gun-shot wounds is practically more simple than it has seemed to our unaccustomed minds. Operations for their relief are most successful upon the field, while in hospitals and under the depressing circumstances that surround them, it is the dictate of a prudent judgment to avoid, so far as possible, the use of the knife, which is in fact unnecessary in nine cases out of ten."

Dr. Armsby and family, of Albany, returned from Europe by the Arabia. He has resigned as United States Consul at Naples and returns to his profession, and to the Medical College and Hospital with which he has been identified since their foundation.

Local Anæsthesia.—Mr. Fournie recommends for the induction of local anæsthesia, a mixture of equal parts of glacial acetic acid and chloroform. He states that complete insensibility of the part may be obtained in five minutes.—*Phar. Journal.*

VITAL STATISTICS OF BOSTON.

For the Week ending Saturday, August 9th, 1862.

DEATHS.

	Males.	*Females*	*Total.*
Deaths during the week,	53	46	99
Average Mortality of the corresponding weeks of the ten years, 1851-1861,	50.8	49.4	100.02
Average corrected to increased population,	..	..	113.19
Deaths of persons above 90,	..	1	1

Mortality from Prevailing Diseases.

Phthisis.	Chol. Inf.	Croup.	Scar. Fev.	Pneumonia.	Variola.	Dysentery.	Typ. Fev.	Diphtheria.
17	24	0	2	0	0	4	3	0

METEOROLOGY.

From Observations taken at the Observatory of Harvard College.—For the week ending July 26th.

Mean height of Barometer,	29.953	Highest point of Thermometer,	76.0
Highest point of Barometer,	30.186	Lowest point of Thermometer,	51.0
Lowest point of Barometer,	29.830	General direction of Wind,	W.S.W.
Mean Temperature,	63.9	Am't of Rain (inches),	1.03

For the week ending July 19:—Mean of barometer, 29.959; highest point of barometer, 30.284; lowest point of barometer, 29.760. Mean of thermometer, 70.8; highest point of thermometer, 88; lowest point of thermometer, 48. General direction of wind, W.S W. Amount of rain (in inches), 1.90.

Received.—Cases in Country Practice, No. VI. By Dr. John Ellis Blake, Middletown, Conn.

Died,—July 30th, at Pilottown, S. W. Pass, Mississippi River, Dr. C. H. Wheelwright, U.S.N., M.M.M.S., aged 49 years.

Resident Fellows of the Massachusetts Medical Society, are notified that they can obtain their numbers of Braithwaite, Part XLV., by calling at this office.

Deaths in Boston for the week ending Saturday noon, August 9th, 99. Males, 53—Females, 46.—Accidents, 4—apoplexy, 1—inflammation of the bowels, 1—congestion of the brain, 1—disease of the brain, 1—inflammation of the brain, 1—bronchitis, 3—cancer, 2—carbuncle, 1—cholera infantum, 24—consumption, 17—convulsions, 3—cynanche trachealis, 1—diarrhœa, 1—dropsy, 3—dropsy of the head, 8—dysentery, 4—scarlet fever, 2—typhoid fever, 3—disease of the heart, 3—marasmus, 2—measles, 1—old age, 2—peritonitis, 2—pleurisy, 1—premature birth, 2—puerperal disease, 1—disease of the spine, 1—teething, 1—unknown, 2

Under 5 years of age, 56—between 5 and 20 years, 8—between 20 and 40 years, 16—between 40 and 60 years, 8—above 60 years, 11. Born in the United States, 83—Ireland, 12—other places, 4.